

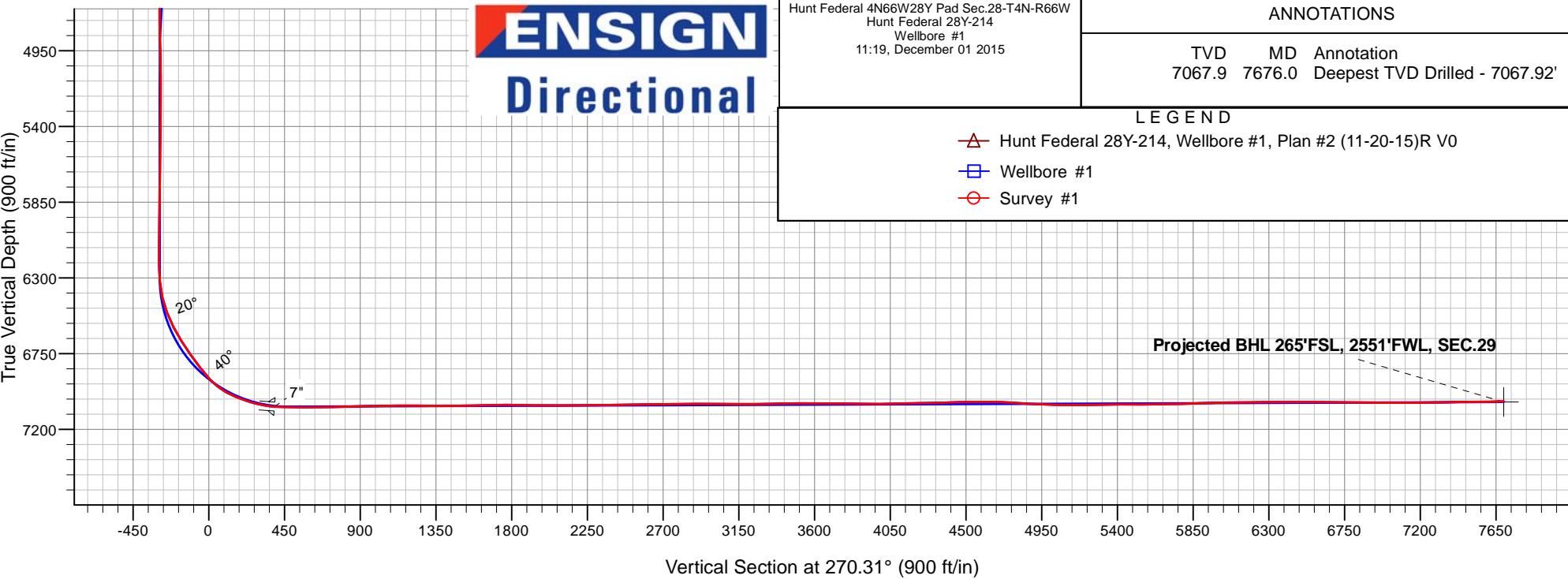
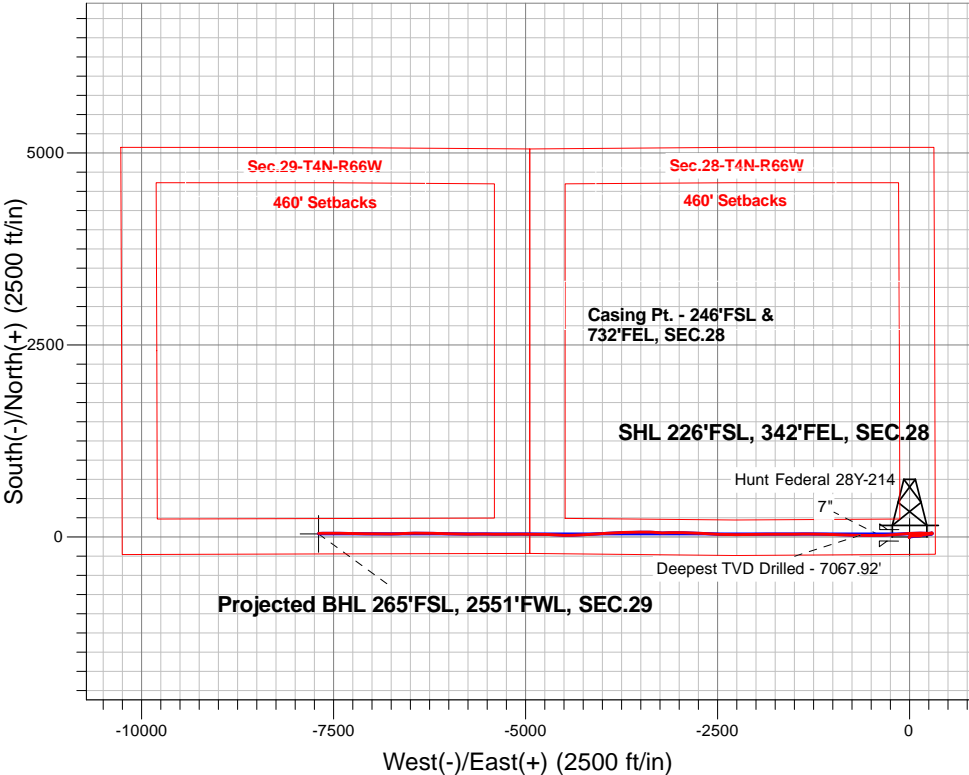
PETROLEUM DEVELOPMENT CORP DJ Basin

Well Name: **Hunt Federal 28Y-214**

Surface Location: Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
Ground Elevation: 4762.0
+N/-S+E/-W Northing Easting Latitude Longitude Slot
0.0 0.0344202.31 3202507.62 40.275960 -104.774210
WELL @ 4775.5ft

FINAL SURVEY

Projected Bottom Hole Location
14735'MD 7034'TVD 46'N & 7694'W of SHL
90.8 degree Incl @ 269.3 degree AZM





PETROLEUM DEVELOPMENT CORP DJ Basin

SEC.28-T4N-R66W

Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W

Hunt Federal 28Y-214

Wellbore #1

Survey: Survey #1

Standard Survey Report

01 December, 2015

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Hunt Federal 28Y-214
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4775.5ft
Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Project	SEC.28-T4N-R66W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W							
Site Position:		Northing:	1,344,202.84	usft	Latitude:	40.275960		
From:	Lat/Long	Easting:	3,202,569.00	usft	Longitude:	-104.773990		
Position Uncertainty:	0.0	ft	Slot Radius:	13-3/16	"	Grid Convergence:	0.47	°

Well	Hunt Federal 28Y-214					
Well Position	+N/-S	0.0 ft	Northing:	1,344,202.31 usft	Latitude:	40.275960
	+E/-W	0.0 ft	Easting:	3,202,507.62 usft	Longitude:	-104.774210
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,762.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/20/2015	8.26	66.80	52,599

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	270.31	

Survey Program	Date	12/1/2015			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
170.0	14,735.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	231.00	1.0	0.0	0.0	0.0	0.35	0.35	0.00	
SHL 226°FSL, 342°FEL, SEC.28										
170.0	0.60	231.00	170.0	-0.6	-0.7	0.7	0.35	0.35	0.00	
263.0	0.80	225.20	263.0	-1.3	-1.5	1.5	0.23	0.22	-6.24	
356.0	0.80	225.20	356.0	-2.2	-2.5	2.4	0.00	0.00	0.00	
450.0	0.70	210.80	450.0	-3.2	-3.2	3.2	0.23	-0.11	-15.32	
544.0	0.90	214.50	544.0	-4.3	-3.9	3.9	0.22	0.21	3.94	
637.0	0.80	224.60	637.0	-5.4	-4.8	4.8	0.19	-0.11	10.86	
730.0	0.60	129.00	729.9	-6.1	-4.9	4.8	1.12	-0.22	-102.80	

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Hunt Federal 28Y-214
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4775.5ft
Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
886.0	1.60	37.60	885.9	-4.9	-2.9	2.9	1.10	0.64	-58.59	
1,009.0	1.10	25.00	1,008.9	-2.5	-1.4	1.3	0.47	-0.41	-10.24	
1,196.0	1.20	18.30	1,195.9	1.0	0.0	0.0	0.09	0.05	-3.58	
1,383.0	1.30	4.90	1,382.8	5.0	0.8	-0.8	0.16	0.05	-7.17	
1,476.0	1.60	343.50	1,475.8	7.3	0.5	-0.5	0.66	0.32	-23.01	
1,569.0	1.80	93.70	1,568.8	8.4	1.6	-1.6	3.00	0.22	118.49	
1,663.0	2.90	95.30	1,662.7	8.1	5.5	-5.4	1.17	1.17	1.70	
1,756.0	3.50	71.70	1,755.5	8.8	10.5	-10.5	1.54	0.65	-25.38	
1,850.0	4.60	65.20	1,849.3	11.3	16.6	-16.6	1.27	1.17	-6.91	
1,945.0	4.60	88.90	1,944.0	12.9	23.9	-23.8	1.99	0.00	24.95	
2,041.0	6.00	92.80	2,039.6	12.8	32.8	-32.7	1.51	1.46	4.06	
2,136.0	6.20	90.00	2,134.1	12.5	42.9	-42.8	0.38	0.21	-2.95	
2,232.0	5.80	84.70	2,229.5	13.0	52.9	-52.8	0.71	-0.42	-5.52	
2,327.0	6.80	92.60	2,324.0	13.2	63.3	-63.2	1.39	1.05	8.32	
2,422.0	6.40	90.50	2,418.3	12.9	74.2	-74.1	0.49	-0.42	-2.21	
2,518.0	6.40	88.60	2,513.7	12.9	84.9	-84.8	0.22	0.00	-1.98	
2,613.0	6.30	89.10	2,608.1	13.1	95.4	-95.3	0.12	-0.11	0.53	
2,709.0	6.20	87.50	2,703.6	13.5	105.8	-105.8	0.21	-0.10	-1.67	
2,804.0	6.20	87.50	2,798.0	13.9	116.1	-116.0	0.00	0.00	0.00	
2,900.0	5.80	85.10	2,893.5	14.5	126.1	-126.0	0.49	-0.42	-2.50	
2,995.0	5.50	84.40	2,988.0	15.4	135.4	-135.3	0.32	-0.32	-0.74	
3,090.0	4.90	68.20	3,082.6	17.3	143.7	-143.6	1.66	-0.63	-17.05	
3,186.0	6.40	73.10	3,178.2	20.4	152.6	-152.5	1.64	1.56	5.10	
3,281.0	5.70	71.70	3,272.6	23.4	162.2	-162.1	0.75	-0.74	-1.47	
3,377.0	6.60	80.20	3,368.1	25.9	172.1	-172.0	1.33	0.94	8.85	
3,472.0	6.20	79.10	3,462.5	27.8	182.6	-182.4	0.44	-0.42	-1.16	
3,567.0	5.50	77.70	3,557.0	29.7	192.0	-191.9	0.75	-0.74	-1.47	
3,663.0	5.20	79.50	3,652.6	31.5	200.8	-200.7	0.36	-0.31	1.88	
3,758.0	5.00	79.50	3,747.2	33.0	209.1	-208.9	0.21	-0.21	0.00	
3,854.0	5.70	84.00	3,842.8	34.3	218.0	-217.8	0.85	0.73	4.69	
3,949.0	5.60	85.30	3,937.3	35.2	227.3	-227.1	0.17	-0.11	1.37	
4,044.0	5.20	84.90	4,031.9	35.9	236.2	-236.0	0.42	-0.42	-0.42	
4,140.0	5.00	86.50	4,127.5	36.6	244.7	-244.5	0.26	-0.21	1.67	
4,235.0	6.40	82.80	4,222.1	37.5	254.1	-253.9	1.52	1.47	-3.89	
4,331.0	6.00	81.20	4,317.5	38.9	264.4	-264.1	0.45	-0.42	-1.67	
4,426.0	5.90	81.20	4,412.0	40.4	274.1	-273.9	0.11	-0.11	0.00	
4,521.0	4.60	90.30	4,506.6	41.2	282.7	-282.5	1.62	-1.37	9.58	
4,617.0	3.20	84.40	4,602.4	41.4	289.2	-289.0	1.52	-1.46	-6.15	
4,712.0	1.40	96.90	4,697.3	41.5	293.0	-292.8	1.96	-1.89	13.16	
4,807.0	1.30	300.20	4,792.3	41.9	293.3	-293.0	2.78	-0.11	-164.95	
4,903.0	1.60	295.30	4,888.2	43.0	291.1	-290.9	0.34	0.31	-5.10	
4,998.0	1.40	311.70	4,983.2	44.4	289.0	-288.8	0.50	-0.21	17.26	

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Hunt Federal 28Y-214
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4775.5ft
Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,094.0	1.50	308.50	5,079.2	45.9	287.2	-286.9	0.13	0.10	-3.33
5,189.0	1.30	350.50	5,174.2	47.8	286.0	-285.8	1.07	-0.21	44.21
5,285.0	0.70	72.40	5,270.1	49.0	286.4	-286.1	1.44	-0.63	85.31
5,380.0	0.80	71.40	5,365.1	49.4	287.6	-287.3	0.11	0.11	-1.05
5,475.0	0.60	72.60	5,460.1	49.8	288.7	-288.4	0.21	-0.21	1.26
5,571.0	0.50	68.90	5,556.1	50.1	289.6	-289.3	0.11	-0.10	-3.85
5,666.0	0.70	70.70	5,651.1	50.4	290.5	-290.2	0.21	0.21	1.89
5,762.0	1.00	74.70	5,747.1	50.8	291.9	-291.6	0.32	0.31	4.17
5,857.0	0.80	64.20	5,842.1	51.3	293.3	-293.0	0.27	-0.21	-11.05
5,953.0	0.70	57.30	5,938.1	52.0	294.4	-294.1	0.14	-0.10	-7.19
6,048.0	0.80	33.60	6,033.1	52.8	295.2	-294.9	0.34	0.11	-24.95
6,144.0	0.30	30.20	6,129.1	53.6	295.7	-295.4	0.52	-0.52	-3.54
6,239.0	0.30	305.70	6,224.1	54.0	295.6	-295.3	0.42	0.00	-88.95
6,335.0	4.90	261.70	6,319.9	53.5	291.4	-291.1	4.88	4.79	-45.83
6,430.0	13.60	255.10	6,413.6	50.0	276.5	-276.3	9.21	9.16	-6.95
6,525.0	21.00	267.70	6,504.3	46.5	248.7	-248.4	8.69	7.79	13.26
6,621.0	26.80	274.70	6,592.0	47.6	209.9	-209.6	6.72	6.04	7.29
6,716.0	32.40	269.50	6,674.6	49.1	163.0	-162.8	6.48	5.89	-5.47
6,811.0	35.50	269.30	6,753.4	48.5	110.0	-109.7	3.27	3.26	-0.21
6,907.0	36.70	270.30	6,831.0	48.4	53.4	-53.2	1.39	1.25	1.04
7,002.0	43.80	267.40	6,903.5	47.0	-7.9	8.1	7.73	7.47	-3.05
7,098.0	56.80	262.40	6,964.7	40.2	-81.2	81.4	14.11	13.54	-5.21
7,145.0	63.00	265.30	6,988.2	35.8	-121.6	121.8	14.23	13.19	6.17
7,193.0	68.60	266.00	7,007.9	32.5	-165.3	165.4	11.74	11.67	1.46
7,240.0	69.90	266.10	7,024.6	29.5	-209.1	209.3	2.77	2.77	0.21
7,289.0	73.70	265.10	7,039.9	25.9	-255.5	255.7	7.99	7.76	-2.04
7,336.0	78.10	266.30	7,051.3	22.5	-301.0	301.1	9.68	9.36	2.55
7,384.0	81.60	269.10	7,059.8	20.6	-348.2	348.3	9.28	7.29	5.83
7,426.0	85.40	270.21	7,064.5	20.4	-389.9	390.0	9.43	9.06	2.65
7"									
7,437.0	86.40	270.50	7,065.3	20.4	-400.9	401.0	9.43	9.06	2.62
7,486.0	90.00	270.50	7,066.8	20.9	-449.8	449.9	7.35	7.35	0.00
7,581.0	89.30	270.00	7,067.4	21.3	-544.8	544.9	0.91	-0.74	-0.53
7,676.0	90.10	270.90	7,067.9	22.0	-639.8	639.9	1.27	0.84	0.95
Deepest TVD Drilled - 7067.92'									
7,772.0	91.30	271.60	7,066.7	24.1	-735.8	735.9	1.45	1.25	0.73
7,867.0	91.80	270.90	7,064.2	26.2	-830.7	830.8	0.91	0.53	-0.74
7,963.0	91.30	272.60	7,061.6	29.1	-926.6	926.8	1.85	-0.52	1.77
8,058.0	90.60	271.90	7,060.0	32.9	-1,021.5	1,021.7	1.04	-0.74	-0.74
8,154.0	89.90	271.20	7,059.6	35.4	-1,117.5	1,117.7	1.03	-0.73	-0.73
8,249.0	90.10	271.10	7,059.6	37.4	-1,212.5	1,212.7	0.24	0.21	-0.11
8,341.0	89.50	270.30	7,059.9	38.5	-1,304.5	1,304.7	1.09	-0.65	-0.87
8,433.0	90.70	269.50	7,059.7	38.3	-1,396.5	1,396.7	1.57	1.30	-0.87

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Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,526.0	90.10	268.60	7,059.1	36.8	-1,489.5	1,489.6	1.16	-0.65	-0.97
8,618.0	91.30	270.30	7,058.0	35.9	-1,581.4	1,581.6	2.26	1.30	1.85
8,710.0	91.80	269.60	7,055.5	35.8	-1,673.4	1,673.6	0.93	0.54	-0.76
8,803.0	89.70	269.30	7,054.3	34.9	-1,766.4	1,766.6	2.28	-2.26	-0.32
8,895.0	89.00	268.40	7,055.3	33.1	-1,858.4	1,858.5	1.24	-0.76	-0.98
8,987.0	89.70	270.20	7,056.4	32.0	-1,950.3	1,950.5	2.10	0.76	1.96
9,079.0	89.50	270.50	7,057.0	32.5	-2,042.3	2,042.5	0.39	-0.22	0.33
9,171.0	90.90	270.50	7,056.7	33.3	-2,134.3	2,134.5	1.52	1.52	0.00
9,264.0	89.90	268.60	7,056.0	32.6	-2,227.3	2,227.5	2.31	-1.08	-2.04
9,356.0	90.60	269.60	7,055.6	31.1	-2,319.3	2,319.4	1.33	0.76	1.09
9,448.0	90.00	270.90	7,055.1	31.5	-2,411.3	2,411.4	1.56	-0.65	1.41
9,540.0	91.00	273.20	7,054.3	34.8	-2,503.2	2,503.4	2.73	1.09	2.50
9,633.0	91.90	272.80	7,052.0	39.7	-2,596.1	2,596.3	1.06	0.97	-0.43
9,725.0	91.50	273.20	7,049.3	44.5	-2,687.9	2,688.1	0.61	-0.43	0.43
9,817.0	90.50	273.30	7,047.6	49.7	-2,779.8	2,780.0	1.09	-1.09	0.11
9,909.0	89.70	272.10	7,047.5	54.1	-2,871.6	2,871.9	1.57	-0.87	-1.30
10,001.0	89.90	271.80	7,047.8	57.2	-2,963.6	2,963.9	0.39	0.22	-0.33
10,094.0	89.30	268.40	7,048.5	57.4	-3,056.6	3,056.8	3.71	-0.65	-3.66
10,186.0	89.40	267.90	7,049.5	54.4	-3,148.5	3,148.8	0.55	0.11	-0.54
10,278.0	90.90	272.80	7,049.3	54.9	-3,240.5	3,240.7	5.57	1.63	5.33
10,370.0	91.60	273.20	7,047.3	59.8	-3,332.3	3,332.6	0.88	0.76	0.43
10,462.0	90.70	271.60	7,045.4	63.6	-3,424.2	3,424.5	2.00	-0.98	-1.74
10,555.0	90.00	269.10	7,044.8	64.2	-3,517.2	3,517.5	2.79	-0.75	-2.69
10,647.0	89.80	268.10	7,045.0	61.9	-3,609.2	3,609.5	1.11	-0.22	-1.09
10,742.0	89.30	267.00	7,045.7	57.9	-3,704.1	3,704.4	1.27	-0.53	-1.16
10,838.0	89.30	267.70	7,046.9	53.4	-3,800.0	3,800.2	0.73	0.00	0.73
10,933.0	89.40	269.10	7,048.0	50.8	-3,894.9	3,895.2	1.48	0.11	1.47
11,029.0	90.40	266.50	7,048.2	47.1	-3,990.9	3,991.1	2.90	1.04	-2.71
11,124.0	91.60	265.10	7,046.5	40.1	-4,085.6	4,085.8	1.94	1.26	-1.47
11,220.0	91.20	265.10	7,044.2	31.9	-4,181.2	4,181.3	0.42	-0.42	0.00
11,315.0	90.50	266.30	7,042.8	24.8	-4,275.9	4,276.0	1.46	-0.74	1.26
11,410.0	91.90	268.40	7,040.8	20.4	-4,370.8	4,370.9	2.66	1.47	2.21
11,506.0	91.50	271.60	7,037.9	20.4	-4,466.8	4,466.8	3.36	-0.42	3.33
11,601.0	91.30	273.70	7,035.6	24.8	-4,561.6	4,561.7	2.22	-0.21	2.21
11,697.0	88.50	272.60	7,035.8	30.1	-4,657.5	4,657.6	3.13	-2.92	-1.15
11,792.0	86.70	271.80	7,039.7	33.7	-4,752.3	4,752.4	2.07	-1.89	-0.84
11,888.0	86.10	270.30	7,045.8	35.5	-4,848.1	4,848.2	1.68	-0.63	-1.56
11,983.0	87.90	270.20	7,050.7	35.9	-4,943.0	4,943.1	1.90	1.89	-0.11
12,079.0	88.60	270.20	7,053.7	36.2	-5,038.9	5,039.0	0.73	0.73	0.00
12,174.0	90.50	270.20	7,054.4	36.6	-5,133.9	5,134.0	2.00	2.00	0.00
12,269.0	90.50	269.30	7,053.6	36.2	-5,228.9	5,229.0	0.95	0.00	-0.95
12,365.0	91.40	270.20	7,052.0	35.7	-5,324.9	5,325.0	1.33	0.94	0.94
12,460.0	90.00	271.10	7,050.8	36.8	-5,419.9	5,420.0	1.75	-1.47	0.95

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Hunt Federal 28Y-214
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4775.5ft
Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,556.0	90.00	270.20	7,050.8	37.9	-5,515.9	5,516.0	0.94	0.00	-0.94
12,651.0	89.30	269.50	7,051.4	37.7	-5,610.9	5,611.0	1.04	-0.74	-0.74
12,746.0	92.10	269.80	7,050.3	37.1	-5,705.8	5,706.0	2.96	2.95	0.32
12,842.0	92.20	270.50	7,046.7	37.3	-5,801.8	5,801.9	0.74	0.10	0.73
12,937.0	91.10	271.90	7,043.9	39.3	-5,896.7	5,896.8	1.87	-1.16	1.47
13,032.0	91.50	271.90	7,041.8	42.5	-5,991.6	5,991.8	0.42	0.42	0.00
13,128.0	90.70	271.80	7,039.9	45.6	-6,087.6	6,087.7	0.84	-0.83	-0.10
13,223.0	90.50	271.10	7,038.9	48.0	-6,182.5	6,182.7	0.77	-0.21	-0.74
13,318.0	90.60	270.30	7,038.0	49.1	-6,277.5	6,277.7	0.85	0.11	-0.84
13,414.0	90.50	269.80	7,037.1	49.2	-6,373.5	6,373.7	0.53	-0.10	-0.52
13,509.0	90.40	268.80	7,036.3	48.1	-6,468.5	6,468.7	1.06	-0.11	-1.05
13,605.0	88.90	268.80	7,036.9	46.0	-6,564.5	6,564.6	1.56	-1.56	0.00
13,700.0	89.30	267.90	7,038.4	43.3	-6,659.4	6,659.6	1.04	0.42	-0.95
13,795.0	89.10	269.30	7,039.8	41.0	-6,754.4	6,754.5	1.49	-0.21	1.47
13,891.0	90.00	271.10	7,040.5	41.3	-6,850.4	6,850.5	2.10	0.94	1.88
13,986.0	90.00	270.20	7,040.5	42.4	-6,945.4	6,945.5	0.95	0.00	-0.95
14,082.0	89.50	269.50	7,040.9	42.1	-7,041.4	7,041.5	0.90	-0.52	-0.73
14,177.0	90.60	271.60	7,040.8	43.1	-7,136.3	7,136.5	2.50	1.16	2.21
14,272.0	90.70	271.20	7,039.8	45.4	-7,231.3	7,231.5	0.43	0.11	-0.42
14,368.0	90.70	270.90	7,038.6	47.1	-7,327.3	7,327.4	0.31	0.00	-0.31
14,463.0	90.90	270.50	7,037.3	48.3	-7,422.3	7,422.4	0.47	0.21	-0.42
14,559.0	90.70	269.80	7,035.9	48.6	-7,518.3	7,518.4	0.76	-0.21	-0.73
14,654.0	90.70	268.90	7,034.8	47.5	-7,613.2	7,613.4	0.95	0.00	-0.95
14,680.0	90.80	269.30	7,034.4	47.1	-7,639.2	7,639.4	1.59	0.38	1.54
14,735.0	90.80	269.30	7,033.7	46.4	-7,694.2	7,694.4	0.00	0.00	0.00
BHL 260'FSL, 2550'FWL, SEC.29									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 226'FSL, 342'FEL, : - hit/miss target - Shape - survey hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,344,202.33	3,202,507.62	40.275960	-104.774210
BHL 260'FSL, 2550'FWL - survey misses target center by 6.3ft at 14735.0ft MD (7033.7 TVD, 46.4 N, -7694.2 E) - Point	0.00	0.00	7,037.0	41.3	-7,695.7	1,344,180.62	3,194,812.18	40.276070	-104.801790

Company:	PETROLEUM DEVELOPMENT CORP DJ Basin	Local Co-ordinate Reference:	Well Hunt Federal 28Y-214
Project:	SEC.28-T4N-R66W	TVD Reference:	WELL @ 4775.5ft
Site:	Hunt Federal 4N66W28Y Pad Sec.28-T4N-R66W	MD Reference:	WELL @ 4775.5ft
Well:	Hunt Federal 28Y-214	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	US_EDM

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,426.0	7,064.5	7"	7	8-3/4	

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
7,676.0	7,067.9	22.0	-639.8	Deepest TVD Drilled - 7067.92'	

Checked By: _____	Approved By: _____	Date: _____
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